

OFFICE OF THE NEVADA ENVIRONMENTAL RESPONSE TRUST TRUSTEE

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December 19, 2018

Dr. Weiquan Dong, P.E.
Bureau of Industrial Site Cleanup
Nevada Division of Environmental Protection
2030 E. Flamingo Rd, Suite 230
Las Vegas NV 89119

RE: Response to October 23, 2018 Comments from NDEP on the August 3, 2018 *Baseline Health Risk Assessment Work Plan for OU-1 and OU-2 Soil Gas and Groundwater*
Nevada Environmental Response Trust
Henderson, Nevada

Dear Dr. Dong:

The Nevada Environmental Response Trust (NERT or the Trust) is pleased to present the Baseline Health Risk Assessment Work Plan for OU-1 and OU-2 Soil Gas and Groundwater, Revision 1 for Nevada Division of Environmental Protection (NDEP) review. This revised BHRA Work Plan for OU-1 and OU-2 Soil Gas and Groundwater is submitted as requested by NDEP and addresses comments on the August 3, 2018 BHRA Work Plan for OU-1 and OU-2 Soil Gas and Groundwater provided by NDEP on October 23, 2018. A response to the comments included in NDEP's October 23, 2018 letter is provided in Attachment 1.

If you have any questions or concerns regarding this matter, feel to contact me at (702) 960-4309 or at steve.clough@nert-trust.com.

Office of the Nevada Environmental Response Trust



Stephen R. Clough, P.G., CEM
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CEM Certification Number: 2399, exp. 3/24/19

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Office of the Nevada Environmental Response Trust Trustee
December 19, 2018

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ATTACHMENT 1

Response to the NDEP's October 23, 2018 Comments on the August 3, 2018 *Baseline Health Risk Assessment Work Plan for OU-1 and OU-2 Soil Gas and Groundwater*

NDEP Comment	Response to Comment
<p>1. Section 5.2.2 Fate and Transport Modeling, pages 23 to 25. For the NERT site the unknown in the foregoing discussion is the exact location for each 5-foot soil gas sample relative to infrastructure in the immediate area of the sample. Figure 3-1 (Proposed Soil Gas Sample Locations in the NERT Off-Site Study Area of OU-2) when compared to Figure 4-4 (Existing Shallow Groundwater Sample Locations in the NERT Off-Site Study Area of OU-2) appears to indicate that some soil gas samples may be collected below or immediately adjacent to infrastructure such as a street, for example. The foregoing argument applies as well to Figure 3-2 (Proposed Soil Gas Sample Locations in the Operations Area of OU-1). The NDEP requests that NERT provide documentation for each 5-foot sample location relative to shallow soil cover such that the shallow soil gas data can be appropriately evaluated.</p>	<p>Each 5-foot sample location relative to infrastructure and soil cover in the immediate area of the sample will be documented and included in the forthcoming soil gas and groundwater BHRA reports for OU-1 and OU-2.</p>
<p>2. Section 3.2.2 Phase 2 RI, page 12, 2nd paragraph. Please explain how "stabilized" groundwater were determined.</p>	<p>The groundwater is considered stabilized when the depth to groundwater is no longer recovering from pumping during well development and is consistent with the depth to groundwater in other comparable monitoring wells in the vicinity.</p>
<p>3. Section 3.2.4 Unit 4/5 Buildings Investigation, page 13, 2nd paragraph. Please provide the analytical results for the referenced temporary wells.</p>	<p>Adequate groundwater data from shallow groundwater monitoring wells are available in the area of Unit 4/5 Buildings, and therefore groundwater data from temporary wells will not be included in the OU-1 soil gas and groundwater BHRA. The analytical results for the temporary wells will be presented in the Unit 4 and 5 Buildings Investigation Source Characterization Report currently being prepared, which will be incorporated as an appendix to the forthcoming OU-1/OU-2 RI Report.</p>

NDEP Comment	Response to Comment
<p>4. Section 3.2.4 Unit 4/5 Buildings Investigation, page 13, 3rd paragraph. Please clarify with regards to the 60-ft bgs well construction, e.g., is 60 feet the total depth, or is it the depth to the top of the screen zone, etc. Please provide the construction details and sampling data for these wells.</p>	<p>The reference in the <i>Baseline Health Risk Assessment Work Plan for OU-1 and OU-2 Soil Gas and Groundwater</i> (Work Plan) to 60-feet below ground surface (ft bgs) well construction was intended to refer to the depth to the top of the screened interval. As noted in the Work Plan, the BHRAs for the Operations Area in OU-1 and the NERT Off-Site Study Area in OU-2 will rely on soil gas investigations conducted since approximately 2006 and groundwater sampling results from the shallow monitoring wells (with top of well screens less than 60 ft bgs) collected within the past four years (2015-2018). Any applicable groundwater data collected at monitoring wells with top well screens less than 60 ft bgs from the third mobilization will be included in the OU-1 soil gas and groundwater BHRA.</p> <p>The construction details for all wells and the sampling data for the monitoring wells screened deeper than 60 ft bgs will be presented in the Unit 4 and 5 Buildings Investigation Comprehensive Report currently being prepared, which will be incorporated as an appendix into the forthcoming OU-1/OU-2 RI Report.</p>
<p>5. Table 5-4 Modeling Parameters for the Operations Area of OU-1. Depth to top of soil contamination is stated as a conservative estimate. Are there site-specific data to support the estimate?</p>	<p>When modelling from soil using Jury model, 1 centimeter (cm) is a conservative assumption because it assumes the contamination starts at essentially the ground surface. It is the most conservative value that can be used as input to the model.</p> <p>However, the parameter of depth to top of soil contamination will not be used in the vapor intrusion modeling from soil gas/groundwater to air using Johnson and Ettinger model in the Baseline Health Risk Assessments (BHRAs) for OU-1 and OU-2 Soil Gas and Groundwater. Therefore, this parameter has been removed from Table 5-4.</p>